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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,500	10/09/2003	James J. Baker	84,226	5911

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Office of Counsel Code OC4  
Naval Surface Warfare Center  
Indian Head Division  
101 Strauss Ave., Bldg. D-31  
Indian Head, MD 20640-5035

EXAMINER

FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/681,500

Applicant(s)

BAKER, JAMES J.

Examiner

Aileen B Felton

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3, 7, 8, 14-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Cressman (2,791,114).

Cressman discloses a primer composition that comprises 1-26 % of magnesium powder with potassium perchlorate and a silicone resin (col. 4).

Art Unit: 3641

3. Claims 1-7 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Douda (3,411,964).

Douda discloses a flare composition that comprises 62 % of magnesium with sodium nitrate and silicone resin (col. 2 and 3).

4. Claims 1-7, 9-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Rink et al(6,666,476).

Rink et al discloses an igniter composition that can be used in an igniter cord (col. 10, lines 50-55). The igniter comprises 10-60 % of an Al/Mg alloy which contains 50-90 % of Al and 10-50 % of Mg, with an oxidizer from 30-80 % and 1-10 % of a silicone resin (col. 12).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rink et al (6,666,476) as applied to claim 1-7, 9-18, and 20 above, and further in view of Carlson et al (3,945,322).

Rink et al does not disclose the use of potassium perchlorate as the oxidizer.

Carlson teaches the use of a detonating cord that comprises magnesium, aluminum and potassium perchlorate with a binder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute potassium perchlorate for the oxidizer in Rink since potassium perchlorate is a known oxidizer for use in igniters especially in view of the teaching by Carlson that shows a similar priming mixture with Mg, Al, and potassium perchlorate. Where the ingredients are well known and combined for their known properties, the combination is obvious absent unexpected results, *In re Crocket*, 126 USPQ 186, *In re Pinten*, 173 USPQ 801, and *In re Sussman*, 43 CD 518.

7. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al (3,945,322) in view of Gruber, Jr. (3,366,054).

Carlson et al discloses a detonating cord which comprises a mixture of magnesium, aluminum, potassium perchlorate and a binder. There is not a specific binder disclosed or specific amounts.

Gruber, Jr. teaches the use of a RTV silicone rubber with an ignition assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder taught by Gruber since Carlson discloses that any binder may be used and Gruber has taught a known binder for use in igniters. It would also be obvious to vary the amounts of the particular ingredients in order to optimize the performance of the igniter. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Art Unit: 3641

8. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (6,647,887) in view of Gruber, Jr. (3,366,054).

Smith et al discloses an ignition fuze that comprises a mix of magnesium and aluminum with potassium perchlorate and a binder. There is not a specific binder disclosed or specific amounts.

Gruber, Jr. teaches the use of a RTV silicone rubber with an ignition assembly.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the binder taught by Gruber since Smith discloses that a wide variety of binders may be used and Gruber has taught a known binder for use in igniters. It would also be obvious to vary the amounts of the particular ingredients in order to optimize the performance of the igniter. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

### ***Conclusion***


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198.

Art Unit: 3641

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687. The fax number for submissions before a final action is (703) 872-9326, for after final submissions is (703) 872-9327, and customer service is (703) 872-9325.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

A handwritten signature in cursive script that reads "Aileen B. Felton".

Aileen B. Felton